

IN THE CLAIMS

Claims 1-38. (Cancelled)

39. (New) An information carrier having a wobbled groove formed along a track, wherein said wobbled groove is modulated with an information signal in such a way that said wobbled groove contains positive marks and negative marks, and

wherein one or more of said positive marks are used for indicating a logical "1" or "0" and one or more of said negative marks are used for indicating a logical "0" or "1", respectively.

40. (New) An information carrier according to claim 39, wherein a wobble of said wobbled groove, compared to a sinusoidal wobble, contains a steeper outwardly inclination at positive marks, and a steeper inwardly inclination at negative marks.

41. (New) An information carrier according to claim 40, wherein a logical "1" or "0" is indicated by a plurality of said positive marks, and a logical "0" or "1" is indicated by a plurality of said negative marks, respectively.

42. (New) An information carrier according to claim 39, wherein a logical "1" or "0" is indicated by a plurality of said positive marks, and a logical "0" or "1" is indicated by a plurality of said negative marks, respectively.

43. (New) An information carrier according to claim 39, wherein said wobbled groove contains a combination of said positive marks and said negative marks for indicating an address signal.

44. (New) An information carrier according to claim 39, wherein said wobbled groove contains a combination of at least one of said positive marks and at least one of said negative marks for indicating a synchronization signal.

45. (New) A reproducing apparatus for reproducing an information signal from an information carrier having a wobbled groove formed along a track, wherein the wobbled groove is modulated with an information signal in such a way that the wobbled groove contains positive marks and negative marks, and wherein one or more of the positive marks are used for indicating a logical "1" or "0" and one or more of the negative marks are used for indicating a logical "0" or "1", respectively, said reproducing apparatus comprising:

- a pickup unit operable to read a signal recorded on the information carrier;
- a detector operable to detect at least one of the positive marks and at least one of the negative marks from the read signal;
- a generator operable to generate 1s and 0s according to at least one positive mark signal and at least one negative mark signal; and
- a converter operable to convert the 1s and 0s produced from said generator to an address signal.

46. (New) A reproducing apparatus according to claim 45, wherein a logical "1" is represented by positive marks and a logical "0" is represented by negative marks.

47. (New) A reproducing apparatus according to claim 46, wherein said detector comprises a high pass filter operable to detect a steeper inclination, and a comparator operable to compare a signal output from said high pass filter with a predetermined level.

48. (New) A reproducing apparatus according to claim 46, wherein said generator generates 1s and 0s according to a plurality of positive mark signals and a plurality of negative mark signals.

49. (New) A reproducing apparatus according to claim 48, wherein said detector comprises a high pass filter operable to detect a steeper inclination, and a comparator operable to compare a signal output from said high pass filter with a predetermined level.

50. (New) A reproducing apparatus according to claim 45, wherein said generator generates 1s and 0s according to a plurality of positive mark signals and a plurality of negative mark signals.

51. (New) A reproducing apparatus according to claim 50, wherein said detector comprises a high pass filter operable to detect a steeper inclination, and a comparator operable to compare a signal output from said high pass filter with a predetermined level.

52. (New) A reproducing apparatus according to claim 45, wherein said detector comprises a high pass filter operable to detect a steeper inclination, and a comparator operable to compare a signal output from said high pass filter with a predetermined level.